

## CLAIMS:

1. A circuit arrangement for a mobile radio device comprising a power divider (1) for dividing a high-frequency transmit signal over at least two antennas (2, 3) spatially arranged mutually apart and comprising at least one phase shifter (4) connected between one of the antennas (2) and the power divider (1) for generating a phase difference ( $\Delta$ ) between the transmit signals radiated by the antennas (2, 3), characterized in that the phase shifter (4) is arranged as a non-reciprocal phase shifter, so that high-frequency receive signals received from the antennas (2, 3) are applied to the power divider (1) without a phase difference.  
5
2. A circuit arrangement as claimed in claim 1, characterized in that the antennas (2, 3) are dipole antennas.  
10
3. A circuit arrangement as claimed in claim 2, characterized in that the dipole axes of the antennas (2, 3) are aligned parallel to each other.
- 15 4. A circuit arrangement as claimed in any one of the claims 1 to 3, characterized in that the distance between the antennas (2, 3) is smaller than the wavelength of the transmit mode and receive signals and in that the phase difference ( $\Delta$ ) between the transmit signals radiated by the antennas (2, 3) is  $180^\circ$  at the most.
- 20 5. A circuit arrangement as claimed in claim 4, characterized in that the distance between the antennas (2, 3) corresponds to one or two tenths of the wavelength of the transmit mode and receive signals and in that the phase difference ( $\Delta$ ) between the transmit signals radiated by the antennas (2, 3) is  $100^\circ$  to  $145^\circ$ .
- 25 6. A mobile radio device comprising a transmit mode/receive module which includes a power divider (1) for dividing a high-frequency transmit signal over at least two antennas (2, 3) of the mobile radio device which are spatially arranged mutually apart where a phase shifter (4) for generating a phase difference ( $\Delta$ ) between the transmit signals radiated by the antennas (2, 3) is connected between one of the antennas (2) and the power divider (1),

characterized in that the phase shifter (4) is arranged as a non-reciprocal phase shifter, so that high-frequency receive signals received from the antennas (2, 3) are applied to the power divider (1) without a phase difference.

5    7.         A mobile radio device as claimed in claim 6, characterized in that the antennas (2, 3) of the mobile radio device are dipole antennas whose dipole axes are aligned parallel to each other.

8.         A mobile radio device as claimed in claim 7, characterized in that the antennas (2, 3) of the mobile radio device are arranged at different distances from the head of a user of the mobile radio device.